10/591558 IAP9 Rec'd PCT/PTO 3 1 AUG 2006

SEQUENCE LISTING

<110> Irun Cohen

	Fran Feli	shai Mimran ncisco Quint ix Mor na Carmi	cana				
<120>	CD25 DNA VACCINES FOR TREATING AND PREVENTING T-CELL MEDIATED DISEASES						
<130>	2488.041						
<150> <151>	PCT/IL2005/000273 2005-03-08						
<150> <151>	US 60/550,308 2004-03-08						
<160>	11						
<170>	PatentIn version 3.3						
<210><211><212><212><213>							
<400> gagaga	1 ctgg	atggacccac	aagggtgaca	gcccaggcgg	accgatcttc	ccatcccaca	60
tcctcc	ggcg	cgatgccaaa	aagaggctga	cggcaactgg	gccttctgca	gagaaagacc	120
tccgct	tcac	tgccccggct	ggtcccaagg	gtcaggaaga	tggattcata	cctgctgatg	180
tgggga	ctgc	tcacgttcat	catggtgcct	ggctgccagg	cagagetetg	tgacgatgac	240
ccgcca	gaga	tcccacacgc	cacattcaaa	gccatggcct	acaaggaagg	aaccatgttg	300
aactgt	gaat	gcaagagagg	tttccgcaga	ataaaaagcg	ggtcactcta	tatgctctgt	360
acagga	aact	ctagccactc	gtcctgggac	aaccaatgtc	aatgcacaag	ctctgccact	420
cggaac	acaa	cgaaacaagt	gacacctcaa	cctgaagaac	agaaagaaag	gaaaaccaca	480
gaaatg	caaa	gtccaatgca	gccagtggac	caagcgagcc	ttccaggtca	ctgcagggaa	540
cctcca	ccat	gggaaaatga	agccacagag	agaatttatc	atttcgtggt	ggggcagatg	600
gtttat	tatc	agtgcgtcca	gggatacagg	gctctacaca	gaggtcctgc	tgagagcgtc	660
tgcaaa	atga	cccacgggaa	gacaaggtgg	acccagcccc	agctcatatg	cacaggtgaa	720
atggag	acca	gtcagtttcc	aggtgaagag	aagcctcagg	caagccccga	aggccgtcct	780
gagagt	gaga	cttcctgcct	cgtcacaaca	acagattttc	aaatacagac	agaaatggct	840

900 gcaaccatgg agacgtccat atttacaaca gagtaccagg tagcagtggc cggctgtgtt 960 ttcctqctqa tcagcgtcct cctcctgagt gggctcacct ggcagcggag acagaggaag 1020 agtagaagaa caatctagaa aaccaaaaga acaagaattt cttggtaaga agccgggaac 1080 agacaacaga agtcatgaag cccaagtgaa atcaaaggtg ctaaatggtc gcccaggaga 1140 catccgttgt gcttgcctgc gttttggaag ctctgaagtc acatcacagg acacggggca gtggcaacct tgtctctatg ccagctcagt cccatcagag agcgagcgct acccacttct 1200 aaatagcaat ttcgccgttg aagaggaagg gcaaaaccac tagaactctc catcttattt 1260 tcatgtatat gtgttcatta aagcatgaat ggtatggaac tctctccacc ctatatgtag 1320 tataaagaaa agtaggttta cattcatctc attccaactt cccagttcag gagtcccaag 1380 gaaagcccca gcactaacgt aaatacacaa cacacacat ctaccctata caactggaca 1440 ttgtctgcgt ggttcctttc tcagccgctt ctgactgctg attctcccgt tcacgttgcc 1500 1560 taataaacat ccttcaagaa ctctgggctg ctacccagaa atcattttac ccttggctca 1620 atcctctaag ctaaccccct tctactgagc cttcagtctt gaatttctaa aaaacagagg ccatggcaga ataatctttg ggtaacttca aaacggggca gccaaaccca tgaggcaatg 1680 tcaggaacag aaggatgaat gaggtcccag gcagagaatc atacttagca aagttttacc 1740 tgtgcgttac taattggcct ctttaagagt tagtttcttt gggattgcta tgaatgatac 1800 1860 cctgaatttg gcctgcacta atttgatgtt tacaggtgga cacacaaggt gcaaatcaat 1920 gcgtacgttt cctgagaagt gtctaaaaac accaaaaagg gatccgtaca ttcaatgttt 1980 atgcaaggaa ggaaagaaag aaggaagtga agagggagaa gggatggagg tcacactggt 2040 agaacgtaac cacggaaaag agcgcatcag gcctggcacg gtggctcagg cctataaccc 2100 cageteecta ggagaceaag gegggageat etettgagge caggagtttg agaceageet 2160 gggcagcata gcaagacaca tccctacaaa aaattagaaa ttggctggat gtggtggcat acgcctgtag tcctagccac tcaggaggct gaggcaggag gattgcttga gcccaggagt 2220 tcgaggctgc agtcagtcat gatggcacca ctgcactcca gcctgggcaa cagagcaaga 2280 2308 tcctgtcttt aaggaaaaaa agacaagg

<210> 2

^{:211&}gt; 272

<212> PRT

<213> Homo sapiens

<400> 2

Met Asp Ser Tyr Leu Leu Met Trp Gly Leu Leu Thr Phe Ile Met Val 1 5 10 15

Pro Gly Cys Gln Ala Glu Leu Cys Asp Asp Asp Pro Pro Glu Ile Pro 20 25 30

His Ala Thr Phe Lys Ala Met Ala Tyr Lys Glu Gly Thr Met Leu Asn $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Cys Glu.Cys Lys Arg Gly Phe Arg Arg Ile Lys Ser Gly Ser Leu Tyr 50 55 60

Met Leu Cys Thr Gly Asn Ser Ser His Ser Ser Trp Asp Asn Gln Cys 70 75 80

Gln Cys Thr Ser Ser Ala Thr Arg Asn Thr Thr Lys Gln Val Thr Pro 85 90 95

Gln Pro Glu Glu Gln Lys Glu Arg Lys Thr Thr Glu Met Gln Ser Pro 100 105 110

Met Gln Pro Val Asp Gln Ala Ser Leu Pro Gly His Cys Arg Glu Pro
115 120 125

Pro Pro Trp Glu Asn Glu Ala Thr Glu Arg Ile Tyr His Phe Val Val 130 135 140

Gly Gln Met Val Tyr Tyr Gln Cys Val Gln Gly Tyr Arg Ala Leu His 145 150 155 160

Arg Gly Pro Ala Glu Ser Val Cys Lys Met Thr His Gly Lys Thr Arg 165 170 175

Trp Thr Gln Pro Gln Leu Ile Cys Thr Gly Glu Met Glu Thr Ser Gln 180 185 190

Phe Pro Gly Glu Glu Lys Pro Gln Ala Ser Pro Glu Gly Arg Pro Glu 195 200 205

Ser Glu Thr Ser Cys Leu Val Thr Thr Thr Asp Phe Gln Ile Gln Thr 210 215 220

```
Glu Met Ala Ala Thr Met Glu Thr Ser Ile Phe Thr Thr Glu Tyr Gln
                                       235
225
                   230
Val Ala Val Ala Gly Cys Val Phe Leu Leu Ile Ser Val Leu Leu
                245
Ser Gly Leu Thr Trp Gln Arg Arg Gln Arg Lys Ser Arg Arg Thr Ile
                               265
<210> 3
<211> 21
<212> PRT
<213> Artificial
<220>
<223> synthetic peptide derived from CD25
<400> 3
Thr Thr Asp Thr Gln Lys Ser Thr Gln Ser Val Tyr Gln Glu Asn Leu
                5
Ala Gly His Cys Arg
            20
<210> 4
<211> 20
<212> PRT
<213> Artificial
<220>
<223> synthetic peptide derived from CD25
<400> 4
Ala Ser Glu Glu Ser Gln Gly Ser Arg Asn Ser Phe Pro Glu Ser Glu
                                    10
                5
Ala Cys Pro Thr
            20
<210> 5
<211> 20
<212> PRT
<213> Artificial
<220>
<223> synthetic peptide derived from IL2-Rb
<400> 5
```

```
Ile Phe Leu Glu Thr Leu Thr Pro Asp Thr Ser Tyr Glu Leu Gln Val
Arg Val Ile Ala
           20
<210> 6
<211> 20
<212> PRT
<213> Artificial
<220>
<223> synthetic peptide derived from IL-2Rb
<400> 6
Ser Val Asp Leu Leu Ser Leu Ser Val Val Cys Trp Glu Glu Lys Gly
                                    10
Trp Arg Arg Val
<210> 7
<211> 20
<212> PRT
<213> Artificial
<220>
<223> synthetic peptide derived from TNFR1
<400> 7
Trp Lys Glu Phe Met Arg Leu Leu Gly Leu Ser Glu His Glu Ile Glu
                                    10
                5
Arg Leu Glu Leu
            20
<210> 8
<211> 20
<212> PRT
<213> Artificial
<220>
<223> synthetic peptide derived from p53
<400> 8
Met Thr Ala Met Glu Glu Ser Gln Ser Asp Ile Ser Leu Glu Leu Pro
                5
                                    10
```

Leu Ser Gln Glu 20

<210> 9
<211> 15
<212> PRT
<213> Artificial
<220>
<223> synthetic prptide derived from HSP65
<400> 9
Glu Glu Ser Asn Thr Phe Gly Leu Gln Leu Glu Leu Thr Glu Gly
1 5 10 15

<210> 10 <211> 1578 <212> DNA

<213> Rattus norvegicus

<400> 10 ggaccgagcc cttgttctgg cattctccca ggaggatgca gaaaaggggc tgacccaaca 60 ttctgcagag aatttcatcc agttccttcc tgcatcctga tcccacgtgc cagggagatg 120 gagccacact tgctgatgtt ggggtttctc tcattcacca tagtacccgg ctgttgggca 180 240 gagetgtgtc tgtatgaccc accggaggtc cccaatgcca cgttcaaagc cctctcctac aagaacggca ccatcctaaa ctgtgaatgc aagagaggtt tccgaagact gaatgagctg 300 360 gtctatatgg cttgtctagg aaactcctgg agcaacaact gtcagtgcac aagcaactcc catgacaact caagagagca agttacacct caacctgaag gacagaaaga gcaacagacc 420 acggacacgc agaaatcaac acagtctgtg taccaggaga accttgcagg tcactgcagg 480 gagccccctc cttggagaca tgaagacacc aagagaatct accacttcgt ggaaggacag 540 atagttetet acaegtgtat teaaggatae aaggetetae agagaggtee tgetateage 600 atctgcaaga cagtgtgtgg ggagataagg tggacgcatc cccagctcac gtgtgtagat 660 gaaaaagaac accatcaatt tctggctagt gaagaatctc aaggaagcag aaattctttc 720 ccagagagtg aggetteetg teccaeecee aacacagaet tetcacaaet cacagaagea 780 840 actacaacta tggagacatt cgtgttcaca aaggagtatc aggtagcagt ggccagctgc atcttcctgc tcctcagcat cctcctcctg agtgggttca cctggcaaca tagatggagg 900 aagagcagaa gaaccatcta gcaagctaga acagttggag cccaagggaa gatgatggac 960

tcatgaagct	caagaaacac	ctgaggggtc	aaacgtgcac	tcgacgggtg	cctgtctcct	1020
ttcgatccct	cgggtcctgg	aaagttatga	agtcccgaga	cacaatggca	catcgggaaa	1080
tagcaacttc	atcactaaac	cgaactttcc	attgaagaat	aggatctgac	catttcagtg	1140
cagcagttct	aaagctttaa	cgggagggag	ggcccaacgg	tgcctgtgtg	ttttgttttg	1200
tgtacatgtg	ttgatgggag	ctgcgatggt	gtggtcactt	ttcgtggaac	acacaatata	1260
gaaaagttgc	tttatgttga	cttcttttgg	agagcccagc	actaatgtaa	atactccctc	1320
ctgctcttcc	ttcctcttcc	tcttctcttc	ctccttactc	ctcccctggt	ccacccacct	1380
gcacccatct	acttttcttc	ttcctttctg	ttctcacaag	gtcatcctag	gcatcatgta	1440
tggctggctc	ctttctcaac	ctctgtttgc	ctaactggtt	ctttggattt	catcacttac	1500
tgatcagttt	tttaaaactc	tgggctgaca	atgaggactc	catgttttta	gaaggaaacc	1560
ccctttccac	tgaagctt					1578

<210> 11

<211> 1623

<212> DNA

<213> Mus musculus

<400> 11

gacacagact acacccagag aaagaagagc aagcaccatg ttgaaactat tattgtcacc 60 120 tagatccttc ttagtccttc agctgctcct gctgagggca gggtggagct ccaaggtcct catgtccagt gcgaatgaag acatcaaagc tgatttgatc ctgacttcta cagcccctga 180 acacctcagt gctcctactc tgccccttcc agaggttcag tgctttgtgt tcaacataga 240 300 gtacatgaat tgcacttgga atagcagttc tgagcctcag gcaaccaacc tcacgctgca ctataggtac aaggtatctg ataataatac attccaggag tgcagtcact atttgttctc 360 420 caaagagatt acttctggct gtcagataca aaaagaagat atccagctct accagacatt 480 tgttgtccag ctccaggacc cccagaaacc ccagaggcga gctgtacaga agctaaacct 540 acagaatctt gtgatcccac gggctccaga aaatctaaca ctcagcaatc tgagtgaatc 600 ccagctagag ctgagatgga aaagcagaca tattaaagaa cgctgtttac aatacttggt gcagtaccgg agcaacagag atcgaagctg gacggaacta atagtgaatc atgaacctag 660 attctccctg cctagtgtgg atgagctgaa acggtacaca tttcgggttc ggagccgcta 720 taacccaatc tgtggaagtt ctcaacagtg gagtaaatgg agccagcctg tccactgggg 780 840 gagtcatact gtagaggaga atcetteett gtttgeactg gaagetgtge ttateeetgt

tggcaccatg	gggttgatta	ttaccctgat	ctttgtgtac	tgttggttgg	aacgaatgcc	900	
tccaattccc	cccatcaaga	atctagagga	tctggttact	gaataccaag	ggaacttttc	960	
ggcctggagt	ggtgtgtcta	aagggctgac	tgagagtctg	cagccagact	acagtgaacg	1020	
gttctgccac	gtcagcgaga	ttccccccaa	aggagggcc	ctaggagagg	ggcctggagg	1080	
ttctccttgc	agcctgcata	gcccttactg	gcctccccca	tgttattctc	tgaagccgga	1140	
agcctgaaca	tcaatccttt	gatggaacct	gaaagtccta	tagtcctaag	tgacgctaac	1200	
ctcgggtact	caccttggca	atctggatcc	aatgctcact	ggcttccttg	gggctaaggt	1260	
aagtttcgat	ttcctgtccc	atgtaactgc	ttttctgttc	catatgcgct	acttgagagt	1320	
gtcccttgcc	ctctttccct	gcacaagccc	tcccatgccc	agcctaacac	ctttccactt	1380	
tctttgaaga	gagtcttacc	ctgtagccca	gggtggctgg	gagctcacta	tgtaggccag	1440	
gttggtccaa	ctcacaggct	atcctcccac	ctctgcctca	taagagttgg	ggttactggc	1500	
atgcaccacc	acacccagca	tggtccttct	cttttatagg	attctccctc	cctttttcta	1560	
cctatgattc	aactgtttcc	aaatcaacaa	gaaataaagt	ttttaaccaa	tgataaaaaa	1620	
aaa						1623	